

CLAIMS

WHAT IS CLAIMED IS:

- 5 A1. An information-processing method including:
receiving a message;
ascertaining whether the message is in a selected application format;
if the message is not in the selected application format: routing the message to a
next location; and
10 if the message is in the selected application format:
routing the message to a selected application processor;
processing the message by the selected application processor; and
routing the message to the next location.
- 15 A2. The method of Claim A1, wherein receiving the message includes receiving a packet.
- A3. The method of Claim A2, wherein receiving the packet includes receiving the packet
from a network.
- 20 A4. The method of Claim A3, wherein receiving the packet from a network includes
receiving the packet from a packet switched network.
- A5. The method of Claim A4, wherein the network is the Internet.
- 25 A6. The method of Claim A1, wherein
ascertaining whether the message is in a selected application format includes
ascertaining whether the message is encrypted; and
processing the message by the selected application processor includes decrypting
the message by the selected application processor.

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B1. An information-processing system comprising:

a fabric configured for communication with a network;

a plurality of application service devices;

wherein the plurality of application service devices are configured to receive a

plurality of unprocessed application-specific messages from the fabric;

wherein each unprocessed application-specific message is configured to be

processed by a particular application;

wherein the fabric is adapted to route each of the plurality of unprocessed

application-specific messages to an application service device adapted to

process the message with the particular application;

wherein the plurality of application service devices are further configured to

process the unprocessed application-specific messages in parallel, wherein

each unprocessed application-specific message is processed with the particular

application for which it is configured, whereby a plurality of processed

application-specific messages is produced; and

wherein the plurality of application service devices are further configured to send

the each processed application-specific message to the fabric.

B2. The information-processing system of Claim B1, wherein each message comprises a packet.

B3. The information-processing system of Claim B2, wherein each application service device comprises a hardware state machine.

B4. The information-processing system of Claim B3, wherein the plurality of application service devices are included in a single integrated circuit.

B5. The information-processing system of Claim B1, wherein each application service device comprises a simple programmable processor.

B6. The information-processing system of Claim B1, wherein at least one of the plurality of application service devices comprises a plurality of interoperably configured distinct physical devices.

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B7. The information-processing system of Claim B1, wherein at least one of the plurality of application service devices comprises an SSL/TLS processor.

10 B8. The information-processing system of Claim B1, wherein the plurality of unprocessed application-specific messages comprises an unprocessed application stream, and wherein the plurality of processed application-specific messages comprises a processed application stream.

15 B9. The information-processing system of Claim B8, wherein the application streams comprise an SSL/TLS connection between a web browser and a web server.

B10. The information-processing system of Claim B8, wherein the application streams comprise an e-mail transfer.

20 B11. The information-processing system of Claim B8, wherein the application streams comprise a virtual private networking communication.

B12. The information-processing system of Claim B8, wherein the application streams comprise a TCP offload engine communication.

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C1. An information-processing method, including:

receiving a message;

after receiving the message: ascertaining whether the message is susceptible to be processed by a particular application;

5 if the message is susceptible to be processed by the particular application:

routing the message to an application service device that is adapted to use the particular application to process the message;

after routing the message to the application service device: processing the message by the application service device using the particular

10 application;

after processing the message: routing the message to a next location; and

if the message is not an application-specific message: routing the message to the next location.

15 C2. The information-processing method of Claim C1, wherein the particular application comprises a decryption application, and wherein a message susceptible to be processed by the particular application comprises an encrypted message.

C3. The information-processing method of Claim C2, wherein the message is a packet.

20 C4. An information-processing method, including:

a first iteration of the method of Claim C1;

a second iteration of the method of Claim C1;

wherein the receiving a message of the second iteration corresponds to the routing

25 of the message to the next location of the first iteration, whereby the message is processed in a pipeline fashion.